

M. A. DROITCOUR.
 PRINTING PLATE.
 APPLICATION FILED JUNE 27, 1907.

912,093.

Patented Feb. 9, 1909.

FIG. 1

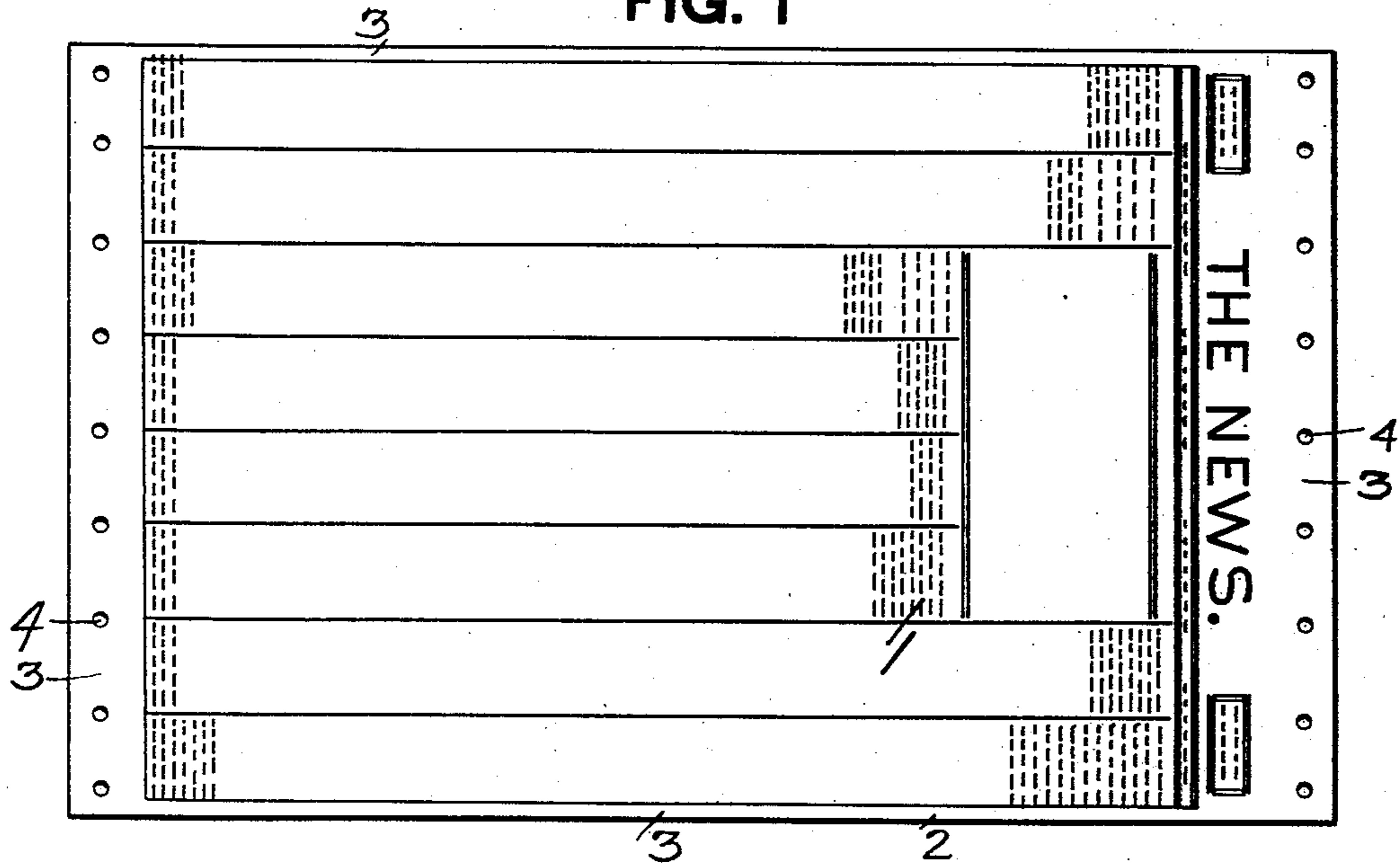


FIG. 2

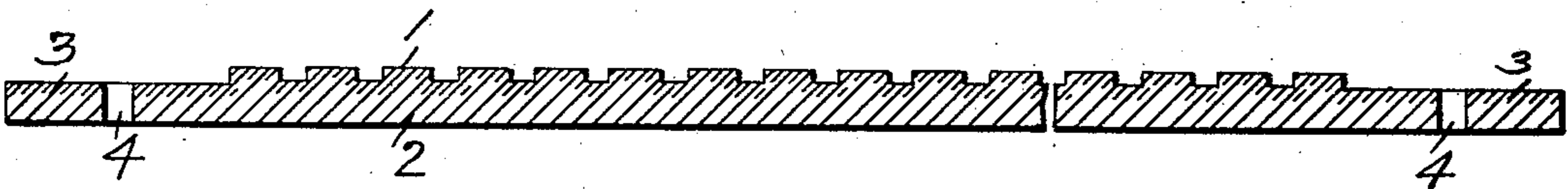
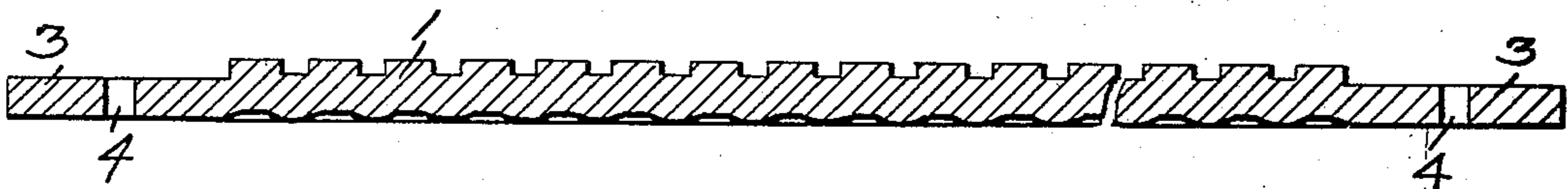


FIG. 3



WITNESSES.

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UNITED STATES PATENT OFFICE.

MICHAEL A. DROITCOUR, OF PITTSBURG, PENNSYLVANIA.

PRINTING-PLATE.

No. 912,093.

Specification of Letters Patent,

Patented Feb. 9, 1909.

Application filed June 27, 1907. Serial No. 381,068.

To all whom it may concern:

Be it known that I, MICHAEL A. DROITCOUR, a resident of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Printing-Plates; and I do hereby declare the following to be a full, clear, and exact description thereof.

This invention relates to printing plates, that is, plates provided with type or other faces to produce impressions in ordinary printing processes.

The object of the invention is to provide a plate for this purpose which is durable, capable of reproducing with accuracy very fine lines and which can be quickly and cheaply made.

In the printing art at the present time the printing plates are made either by the electro-type or stereotype processes, both of which are quite expensive and neither of which produces a plate of absolutely uniform thickness, so that for fine magazine or book work it is necessary to resort to the slow and expensive process of building up the plate on the press cylinder or press bed by placing at the low spots behind the same thin sheets of paper.

My plate is designed to overcome the above objections and consists of a plate formed of celluloid or other pyroxylin or similar plastic material.

In the accompanying drawing Figure 1 is a face view of the plate; Fig. 2 is a section through the same showing the same on a very large scale; and Fig. 3 is a similar view of a modification.

The plate is preferably formed of celluloid or similar pyroxylin composition, but, if desired, may be of hard rubber or other flexible plastic material.

In its preferred form the plate has the type face 1 formed of a thin sheet of the plastic material and with a backing 2 of plastic material applied thereto to strengthen the same. The face sheet is formed by pressing the same to provide the necessary raised type face and this results in forming in the rear face of the sheet depressions corresponding to the raised type characters, as indicated by the cross-hatching in Fig. 2, and also by Fig. 3 which shows a plate similarly made from a thicker sheet. The thicker sheet has sufficient body to stand up under the printing pressure, but the thin sheet is strengthened by applying to the rear face thereof a

suitable backing material. This backing may be of the same material as the type face, or any other suitable plastic material capable of adhering to the face material but leaving the finished plate flexible. Fig. 2 shows the face 1 and backing 2 formed of the similar material; Fig. 3 shows a modification in which the entire plate, both face and backing, is formed from the same body, that is, from a comparatively thick sheet of plastic material.

The plate so formed is flexible and can be used either on a bed press or on a cylinder press. Its margins are preferably depressed, as shown at 3, to prevent printing on the margins, and may be provided with suitable means, such as the holes 4, for securing the plate to the cylinder or bed of the press.

By reason of its pliable nature the plate can be laid on to the surface of an accurately formed cylinder, type face down, and ground or otherwise treated on the back so as to remove surplus material and form a plate of absolutely uniform thickness from its back face to all of its type points. This enables the same to be used for fine press work and without requiring any building up as heretofore necessary. The plate can be quickly and cheaply manufactured, is durable and is adapted for all kinds of printing work, being capable of reproducing the finest lines and getting uniformity of pressure, thus adapting it for fine magazine and similar work, and the plate can be formed with such expedition as to also recommend it for newspaper and similar work.

What I claim is:

1. A printing plate consisting of a thin sheet of plastic composition having printing characters on its front face and having applied to its back a layer of plastic material in intimate adhesion with all parts of the rear face of said sheet, the whole being a complete and substantially integral flexible plate.

2. A printing plate consisting of a thin sheet of pyroxylin composition having printing characters on its front face and having applied to its back a layer of plastic material in intimate adhesion with all parts of the rear face of said sheet, the whole being a complete and substantially integral flexible plate.

3. A printing plate consisting of a thin sheet of pyroxylin composition having printing characters on its front face and having a backing of pyroxylin composition adhering

thereto and forming an integral part therewith.

4. A printing plate consisting of a thin sheet of celluloid having printing characters on its front face and having applied to its back a layer of similar composition in intimate adhesion therewith, the whole forming a complete and substantially integral flexible plate.

5. A printing plate consisting of a thin sheet of plastic composition having on its front face the printing characters and on its rear face depressions corresponding to said characters, and a backing of plastic material adhering to said sheet and filling the depressions on the back thereof.

6. A printing plate consisting of a thin sheet of pyroxylin composition having on its front face printing characters and on its rear

face depressions corresponding to said characters, and a backing of plastic material adhering to said sheet and filling the depressions therein.

7. A printing plate consisting of a thin sheet of pyroxylin composition having on its front face printing characters and on its rear face depressions corresponding to said characters, and a backing of pyroxylin composition adhering to said sheet and filling the depressions therein and forming an integral part therewith.

In testimony whereof, I the said MICHAEL A. DROITCOUR have hereunto set my hand.

M. A. DROITCOUR.

Witnesses:

F. W. WINTER,
ROBERT C. TOTTEN.